

Work Order ID 75347

75347

Page 1

October-21-11 8:03:08 AM

Item ID: D350-636-015

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.L.J

Date: 11/10/21

Tooling:

Date:

Run Start *NR1*

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3492

C

D4168

A

IIN-D350-636

I

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-015 CHG 002

N/A *[Signature]*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75347***75347***

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Run Start ***NR1***

QC:

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SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

110

0.00

110

Skidtubes

0.00

Skidtubes

Memo

Skidtubes

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr, section H-H

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H

5- Drill fwd step holes using DT9616. Ensure proper positioning. All holes as per dwg D4168, detail A

6- Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

9-Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side) open holes of detail D section H-H to 0.500" as per dwg D4168

10-Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

B11/11/23

B11-11-24

W/O:		WORK ORDER CHANGES					
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Quality Control

W/O:		WORK ORDER CHANGES					
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N900040100

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NS1

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Start Date: 20/10/2011 Start Qty: 1.00

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Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

① Bull/26

150

QC3- Inspect Part Finish

0.00

150

QC

Memo

0.00

Quality Control

11-11-26

1 Ⓟ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Revision ID: Stop *NS2*
Item Name: Skidtube STD w/ Training Wearplates, LH
Start Date: 20/10/2011 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 02/11/2011 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
160	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Open up holes of Detail C and ground handling section AL-AL to 0.625" (total of 8 holes per side) as per dwg D4168.								
	2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D4168.								
	3- Open float hole to 0.500" (4 per side) section AJ-AJ								
	Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG								
	4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes section AJ-AJ per dwg D4168 (welding instructions on sheet 8)								
	5-Deburr and blow out all chips from inside of tube								
	6- Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI 015 A/R Sikaflex-291 batch: <u>119397</u> exp. date: <u>12/02/13</u>								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: <u>M11B735</u>								
	9- At section AJ-AJ drill out x-bolt spacer to 0.404"								

B 11/11/27

BE 11-12-04

W/O:		WORK ORDER CHANGES					
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Required Date: 02/11/2011 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D4168, section AL-AL

12- C'bore section CG-CG

13- Deburr holes

***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING
HOLE IN TUBE *****

170

QC10- Inspect visual per QSI004- ground welds

0.00

170

QC

Memo

0.00

Quality Control

S ulie/05

11-12-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Required Date: 02/11/2011 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

190

Pressure Wash per QSI005 4.3

0.00

190

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

200

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

9:30
325 OF
10:00

M119480

1 BX M-L 11-12-8.
1X4 M-L 11/12/12

W/O:		WORK ORDER CHANGES					
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Start Date: 20/10/2011 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC3- Inspect Part Finish	0.00							
210						1			
QC	Memo	0.00							
Quality Control	Inspect for foreign object per QSI 024								
220		0.00							
220	HandFinishing					1			
HandFinish	Memo	0.00							
Hand Finishing	1- Install inserts as per Dwg D4168								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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1

Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230

0.00

230

HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3" batch: 017✓ 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as
per dwg D4168

SIKA FLEX 241

BATCH: 1114443EXP DATE: 1206

✓ 4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube batch: 1110348✓ 5-Coat all exposed fasteners with "LPS Procyon" batch: 11145961 WH φ HL 6/12/21

240

QC5- Inspect part completeness to step on W/O

0.00

240

QC

Memo

0.00

Quality Control

8/11/22

W/O:		WORK ORDER CHANGES					
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Work Order ID 75347

October-21-11 8:03:08 AM

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Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

250

Pick Kit

0.00

250

Packaging

Memo

0.00

Packaging

If making a D350-636-215
pick kit will only requires:
1 X AN3C37A
1 X AN3C34A
1 X AN3C42A
2 X D3493-1

11/12/23

260

QC4- 100% Inspect kits for completeness

0.00

260

QC

Memo

0.00

Quality Control

*****ensure antiseize is on AN8C21A bolts*****

8/11/22

270

Packaging

0.00

270

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD350-636-015
Location: _____
PPP rev: PPA 753 S2

De 2/11/22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Start Date: 20/10/2011 Start Qty: 1.00

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Reference:

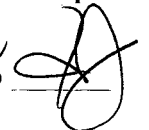
Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

11/12/28 11-12-28
6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Picklist Print

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Parent Item: D350-636-015

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Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC
11.04.14 ecn11-553 DD verf:EC
NCR 11-906 DD verf:EC

IPP Rev:B
IPP Rev:C 11.10.18 as per

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3C34A

Purchased

No

230

Each

66.0000

1

1

**

AN3C34A

BOLT

Location

Loc Qty

Loc Code

ST353

66

116075

42

117514

20

118838

4

AN3C36A

Purchased

No

230

Each

156.0000

4

4

**

AN3C36A

BOLT

Location

Loc Qty

Loc Code

FG

14

101261

4

116590

10

ST353

142

116590

0

119083

12

119125

30

119324

100

10/12/22

X-1

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C37A

Purchased

No

230

Each

139.0000

1

1

**

11195318

AN3C37A

BOLT

Location

Loc Qty

Loc Code

ST354

139

116874

11

117010

2

118518

51

118709

50

119324

25

AN3C42A

Purchased

No

230

Each

45.0000

1

1

**

8

AN3C42A

BOLT

Location

Loc Qty

Loc Code

ST354

45

106176

2

117763

20

118131

20

118451

3

D3492-1

Manufactured

No

230

Each

158.0000

8

8

**

1370185 (x8) 11/12/27

D3492-1

Plug

D3492-041

Location

Loc Qty

Loc Code

FP

158

69531

8

73402

70

74444

80

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3492-3 Manufactured No

230 Each

117.0000

8

8

D3492-3

Plug

**

1368508 (x8) 11/12/12

D3492-043

Location

Loc Qty

Loc Code

FP

117

71838

37

74447

80

D3873-1 Manufactured No

230 Each

356.0000

7

7

D3873-1

Bushing

**

1376792 (x7) 11/12/12

Location

Loc Qty

Loc Code

ST088

356

64760

1

68247

4

73829

19

73831

332

D4154-041 Manufactured No

230 Each

4.0000

1

1

D4154-041

Wearplate Assembly

**

877664 (x1) 11/12/12

Location

Loc Qty

Loc Code

FP

4

71442

4

D4170-1 Manufactured No

230 Each

36.0000

4

4

D4170-1

Bushing

**

BE11-12-04
87677 x4

Location

Loc Qty

Loc Code

LG

32

68225

1

71844

31

LG002

4

65912

4

October-21-11 8:03:13 AM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 4

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Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D4171-1

Manufactured No

230

Each

10.0000

1

1

D4171-1

Bushing

**

B 77008 (41) M 11/12/22

LocationLoc QtyLoc Code

ST135

10

69037

10

MS21043-3

Purchased

No

230

Each

921.0000

4

4

MS21043-3

Nut

**

M 11/12/22

LocationLoc QtyLoc Code

FG

72

103691

72

ST301

849

118077

1

118614

492

118686

356

NAS1149C0363R

Purchased

No

230

Each

3,939.000

8

NAS1149C0363R

Washer

**

8/7 M 11/12/22

LocationLoc QtyLoc Code

ST297

3939

114742

3939

NAS1515H3L

Purchased

No

230

Each

111.0000

4

4

***NAS1515H3I ***

WASHER

**

M 11/12/22

LocationLoc QtyLoc Code

FG

40

102472

40

ST277

71

113362

57

118686

14

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 5

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

230

Each

105.0000

8

8

NAS1611-010

O-RING

**

1119623 (x8) 11/12/11

Location

Loc Qty

Loc Code

FP

81

117460

8

118077

1

118612

72

FP-A

24

110915

14

119307

10

NAS1611-013

Purchased

No

230

Each

192.0000

8

8

NAS1611-013

O-RING

**

11/12/11

Location

Loc Qty

Loc Code

FP

55

117291

2

117887

53

FP-A

137

116582

5

118384

32

119307

100

NAS1149D0863J

Purchased

No

250

Each

230.0000

2

2

NAS1149D0863J

WASHER

**

(V2) 11/12/11

Location

Loc Qty

Loc Code

ST298

230

118078

130

119307

100

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2744

Manufactured No

110

Each

63.0000

1

1

D2744

Cap

**

BE11-11-24

Location

Loc Qty

Loc Code

LG002

13

62715

1

70881

12

WA

50

71861

50

D2600-3-BENT

Manufactured No

110

Each

41.0000

1

1

D2600-3-BENT

Extrusion Bent

**

(1)

BE11-11-23

Location

Loc Qty

Loc Code

LG

41

66875

8

73253

3

75021

10

75022

10

75023

10

D2743

Manufactured No

160

Each

201.0000

8

8

D2743

Crossbolt Spacer

**

BE11-12-04

B76141 x8

Location

Loc Qty

Loc Code

LG

143

71839

79

73403

64

LG001

58

67766

4

68251

54

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160

Each

9.0000

1

1

D2739

350 I Beam

**

B 15/11/27

Location

76866

Loc Qty

Loc Code

LG

9

72155

2

72156

3

72157

4

D3490-3

Manufactured No

160

Each

42.0000

4

4

D3490-3

Cross Bolt Spacer

**

*BE 11-12-04
B 76234 x 4*

Location

Loc Qty

Loc Code

LG

42

73295

42

D3490-1

Manufactured No

160

Each

42.0000

4

4

D3490-1

Cross Bolt Spacer

**

*BE 11-12-04
B 74875 x 5*

Location

Loc Qty

Loc Code

LG

40

67773

5

71841

35

LG001

2

62450

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 8

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

230

Each

2,610.000

4

4

AI S4-1032-225******

Insert

*BR 11-12-22*LocationLoc QtyLoc Code

ST282

2610

108696

758

110768

62

118386

860

118966 ✓

930

AN8C35A

Purchased

No

230

Each

113.0000

1

1

AN8C35A******

BOLT

*AL 11/12/22*LocationLoc QtyLoc Code

FP

77

117511

11

118286

66

FP-A

1

115960

1

ST345

34

117834

34

ST346

1

114442

0

115188

0

115960

1

X1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 9

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3488-041

Manufactured No

230

Each

18.0000

1

1

D3488-041

Blade Fitting Assembly, LH

**

ul 11/12/22

Location

Loc Qty

Loc Code

FP

8

69903

8

FP007

1

61689

1

FP008

9

67788

1

71887

8

X1

AN6C44A

Purchased

No

230

Each

113.0000

4

4

AN6C44A

BOLT

**

ul 11/12/22

Location

Loc Qty

Loc Code

FG

2

103964

2

ST343

111

118387

41

118985

40

119125

30

X4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

92.0000

1

1

MS21083C8

NUT

**

11/12/22

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

6

118077

6

ST303

85

115884

0

118354

10

118614

50

119309

25

11/12/22

D3631-1

Manufactured

No

230

Each

107.0000

8

8

D3631-1

Washer

**

1375548 (x8) 11/12/22

Location

Loc Qty

Loc Code

ST072

107

68062

107

AN960C10L

NAS1149C0332

Purchased

No

230

Each

0.0000

4

4

***AN960C10L ***

washer

**

11119736 (x4) 11/12/22

D2745

Manufactured

No

230

Each

165.0000

8

8

D2745

Bushing

**

13744161 (x8) 11/12/22

Location

Loc Qty

Loc Code

FP-A

3

69529

3

ST021

162

71835

162

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Shop Packet Print

Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 11

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0832R

Purchased

No

230

Each

345.0000

1

1

NAS1149C0832R

WASHER

**

ul x112122

Location

Loc Qty

Loc Code

FP-B

17

114915

17

ST297

328

114915

328

x1

AN3C6A

Purchased

No

230

Each

232.0000

4

4

AN3C6A

BOLT

**

1119749 (x4) ul x112122

Location

Loc Qty

Loc Code

FP-A

1

111982

1

ST351

231

111982

2

116419

23

116549

2

116704

12

117619

10

117688

1

117872

5

118422

176

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 12

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

MS21043-6

Purchased

No

230

Each

505.0000

4

4

MS21043-6

NUT

**

11/12/22

Location

Loc Qty

Loc Code

FG

20

103693

20

ST301

485

112314

275

117887

10

118384

200

✓

D3493-1

Manufactured

No

250

Each

55.0000

2

2

D3493-1

Washer

**

B762378

Location

Loc Qty

Loc Code

ST062

55

70697

17

71846

38

MS21083C8

Purchased

No

250

Each

92.0000

2

2

MS21083C8

NUT

**

11/12/22

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

6

118077

6

ST303

85

115884

0

118354

10

118614

50

119309

25

✓

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 13

Work Order ID: 75347

75347

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 20/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C21A

Purchased

No

250

Each

69.0000

2

2

AN8C21A

BOLT

**

ju 11/12/11

Location

Loc Qty

Loc Code

ST343

69

118045

19

118758

50

v2

D2741

Manufactured

No

250

Each

19.0000

1

1

D2741

Blade, 350 Skidtube

**

Location

Loc Qty

Loc Code

ST466

19

70667

19

71856

1 m-11/12/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER
NO. 75347 M.L.J

11/10/21

RELEASED
2010-09-15

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
C	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149CO363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149CO332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149CO832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- 1) MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- 2) FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- 8) WELD PER DART QSI 004
- 9) FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- 10) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- 11) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- 12) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

A	NEW ISSUE	SC	10.08.09
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4168	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	10.08.09	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

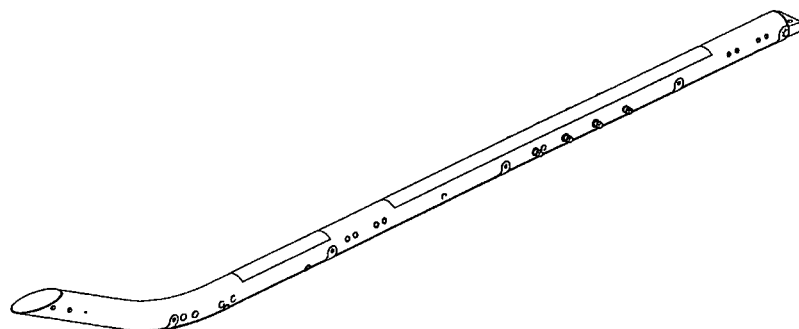
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

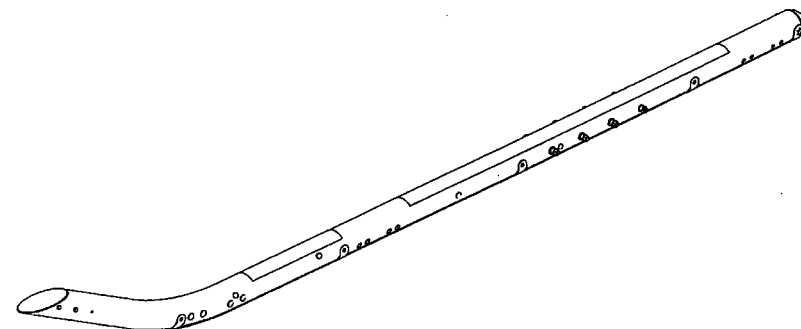
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D4168-041 350 SKIDTUBE ASSEMBLY, LH



D4168-042 350 SKIDTUBE ASSEMBLY, RH

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

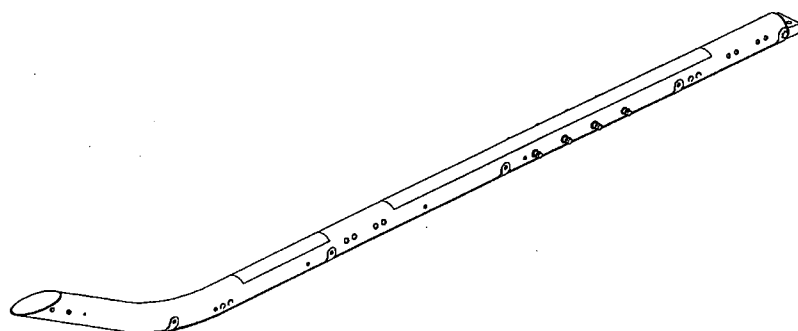
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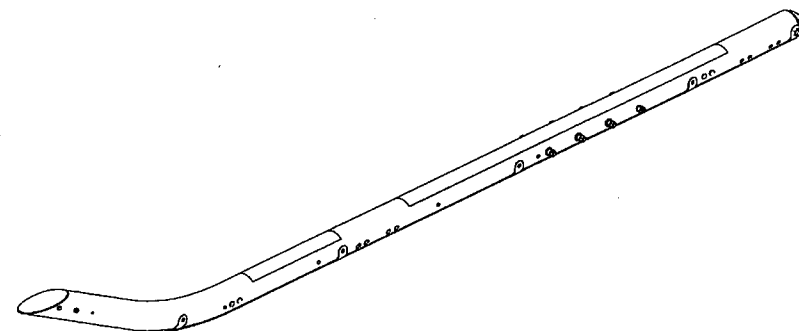
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D4168-044 350 SKIDTUBE ASSEMBLY, RH

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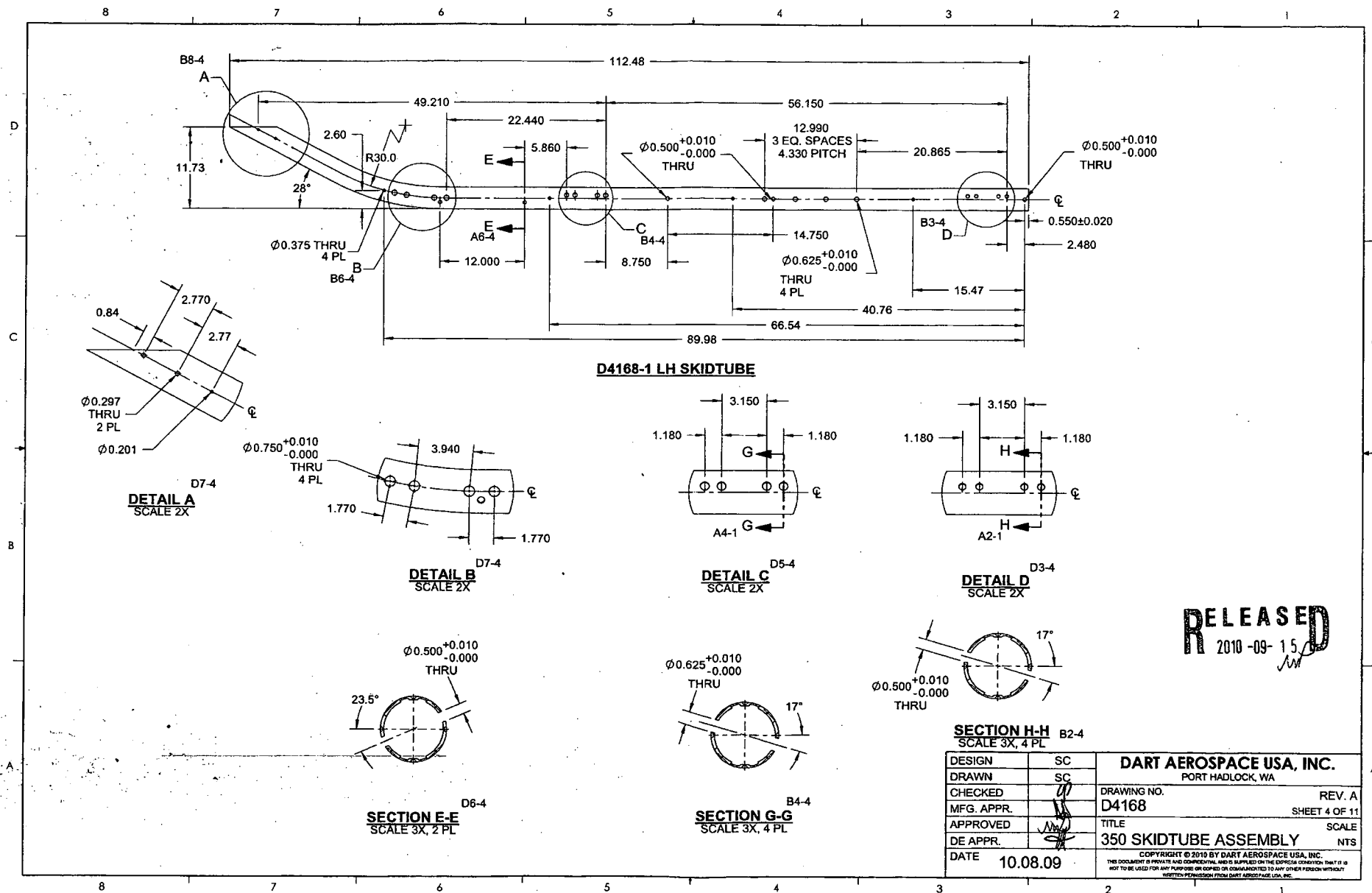
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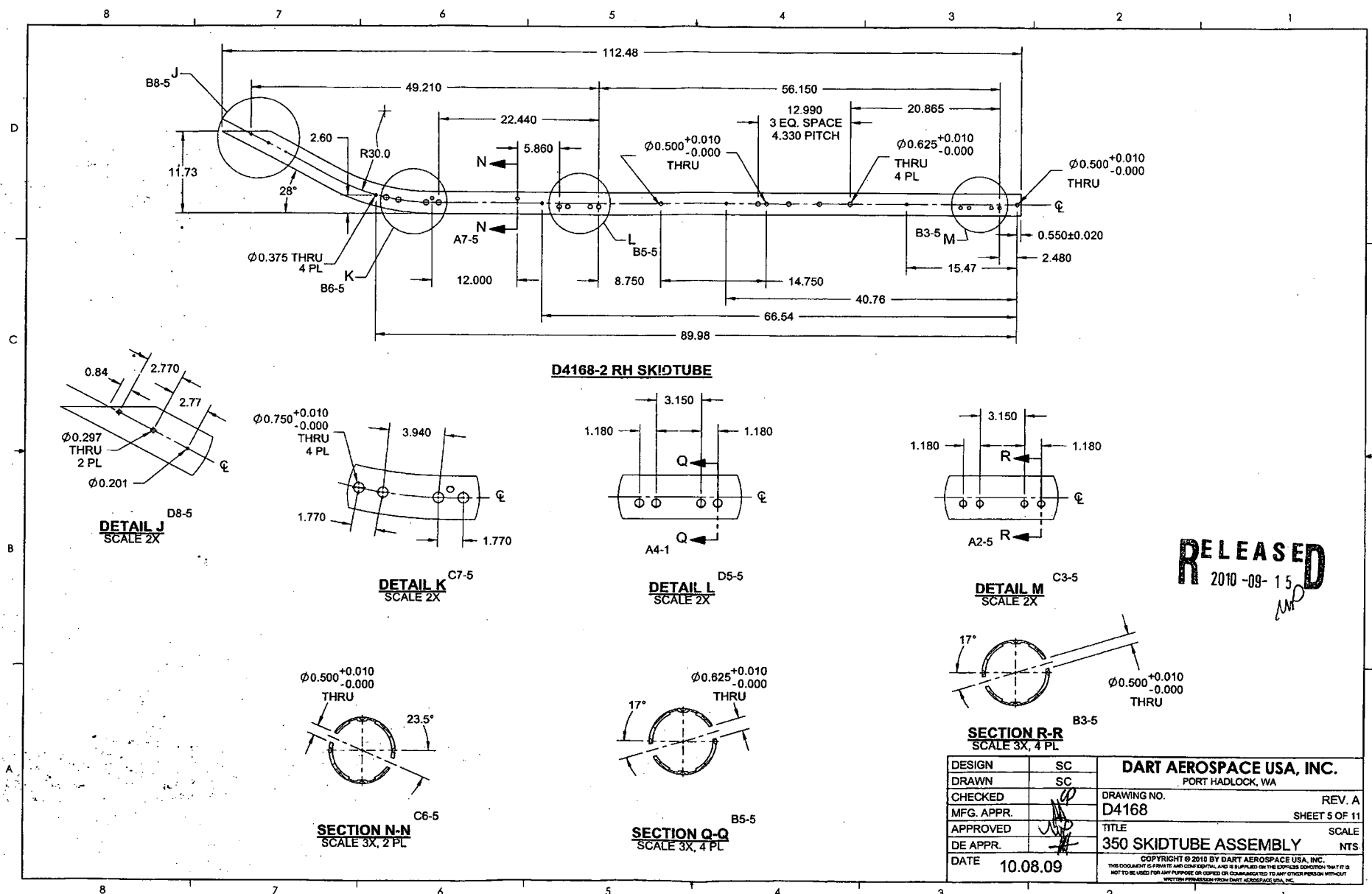
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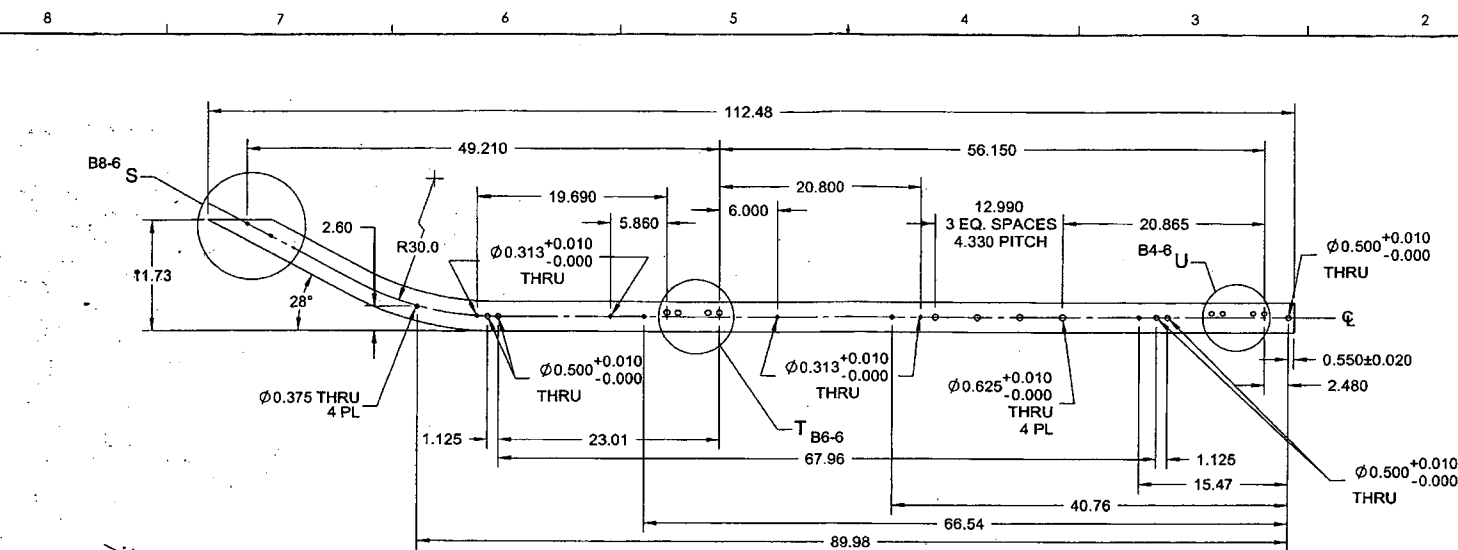
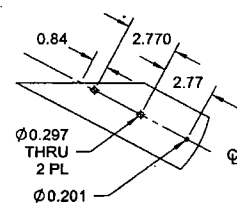
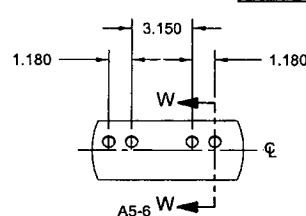
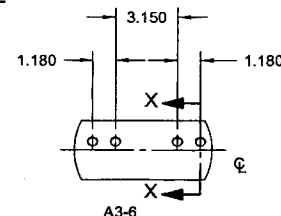
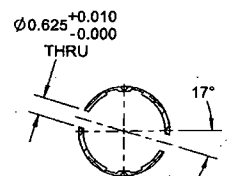
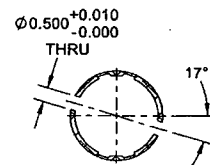
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**D4168-3 LH SKIDTUBE****DETAIL S**
SCALE 2X**DETAIL T**
SCALE 2X**DETAIL U**
SCALE 2X**SECTION W-W**
SCALE 3X, 4 PL**SECTION X-X**
SCALE 3X, 4 PL**RELEASED**
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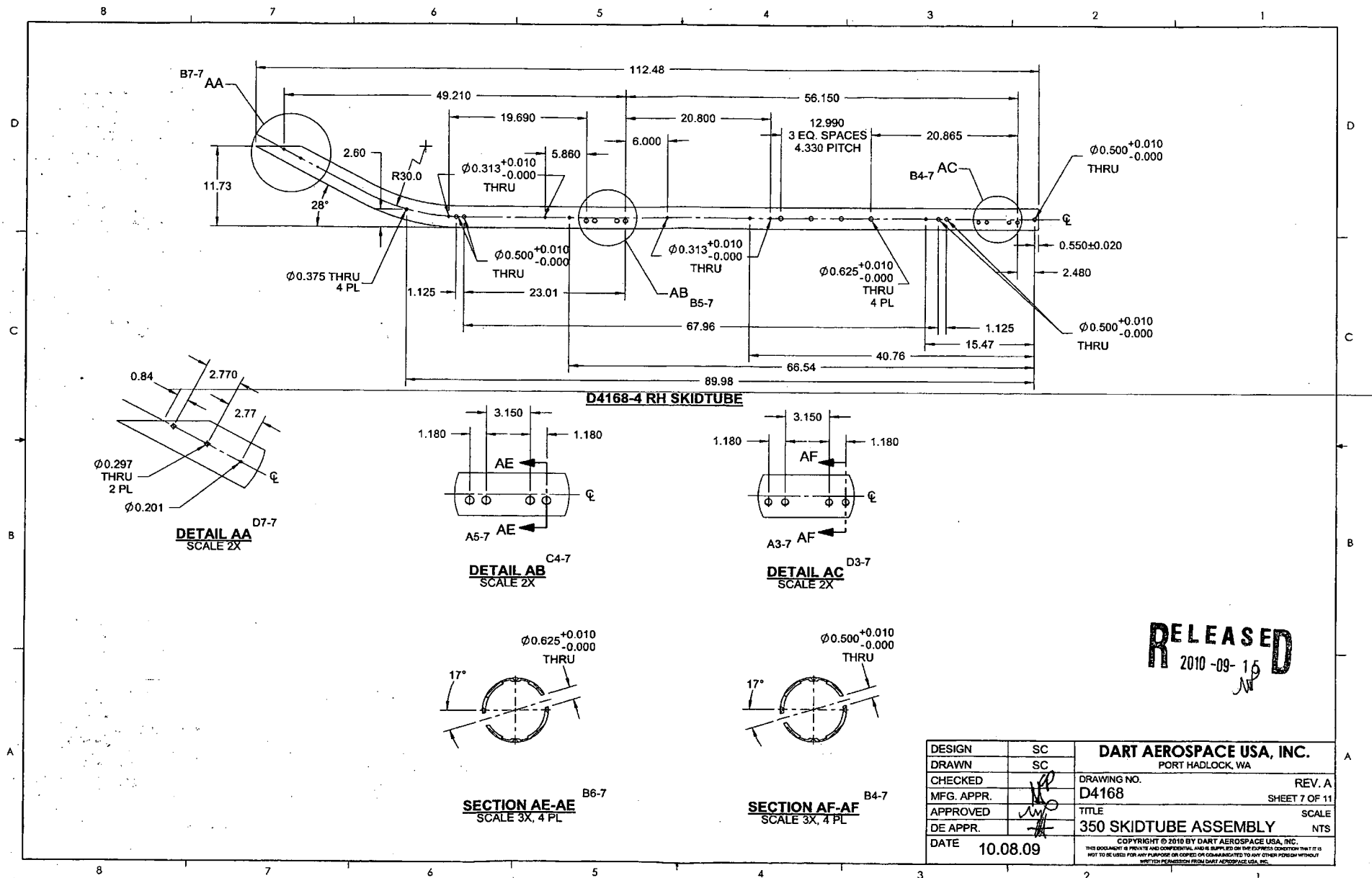
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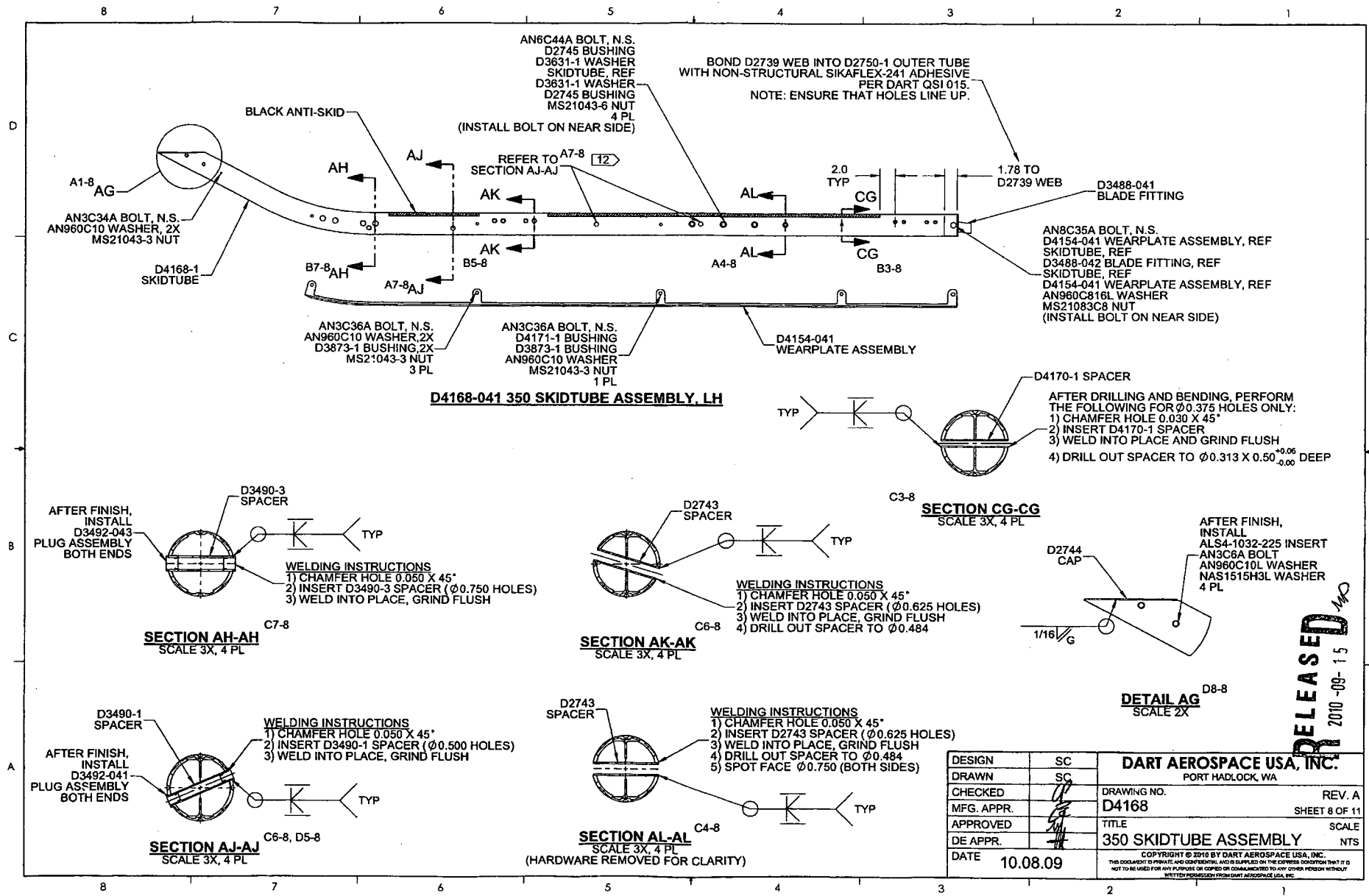
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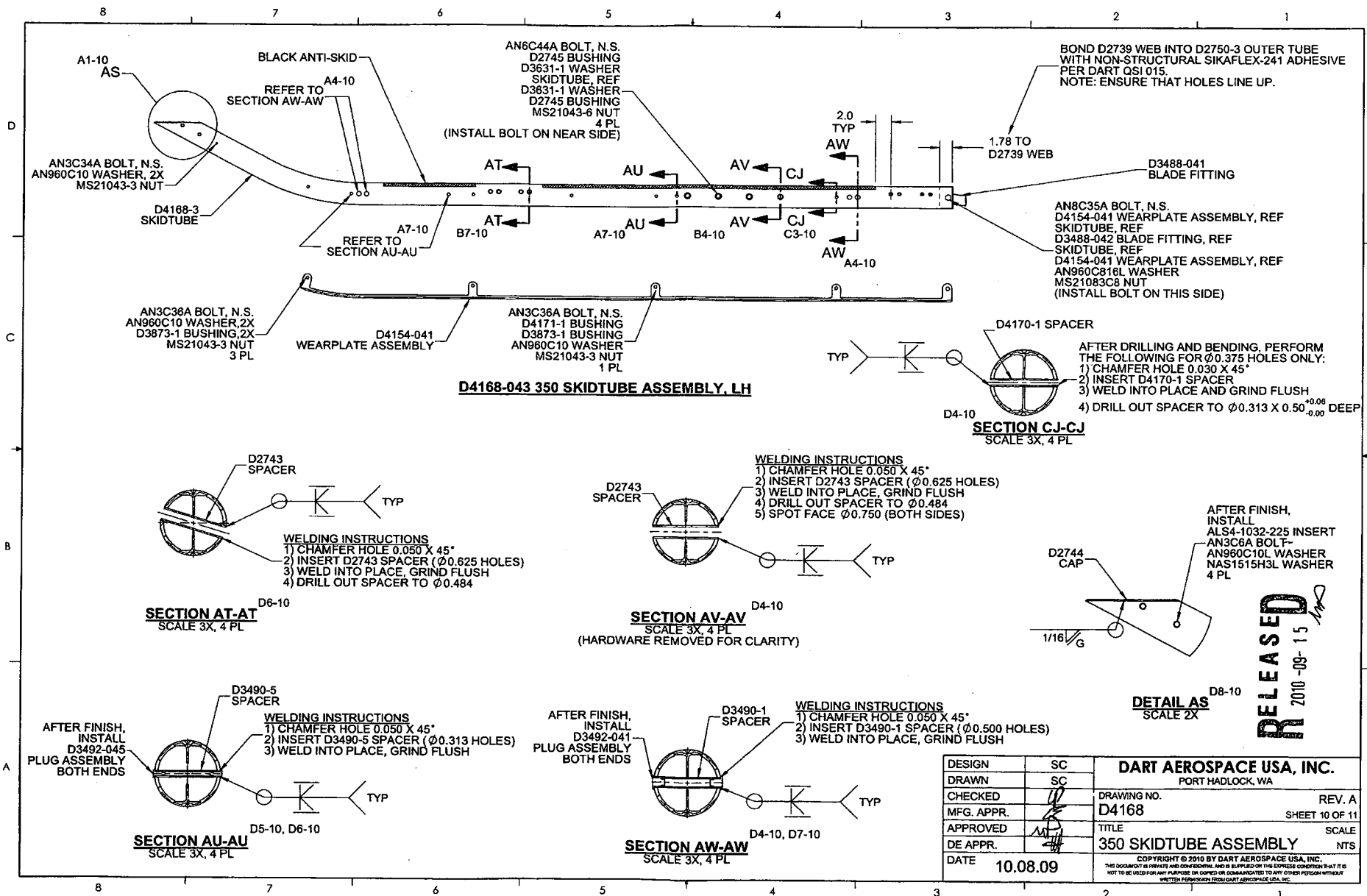
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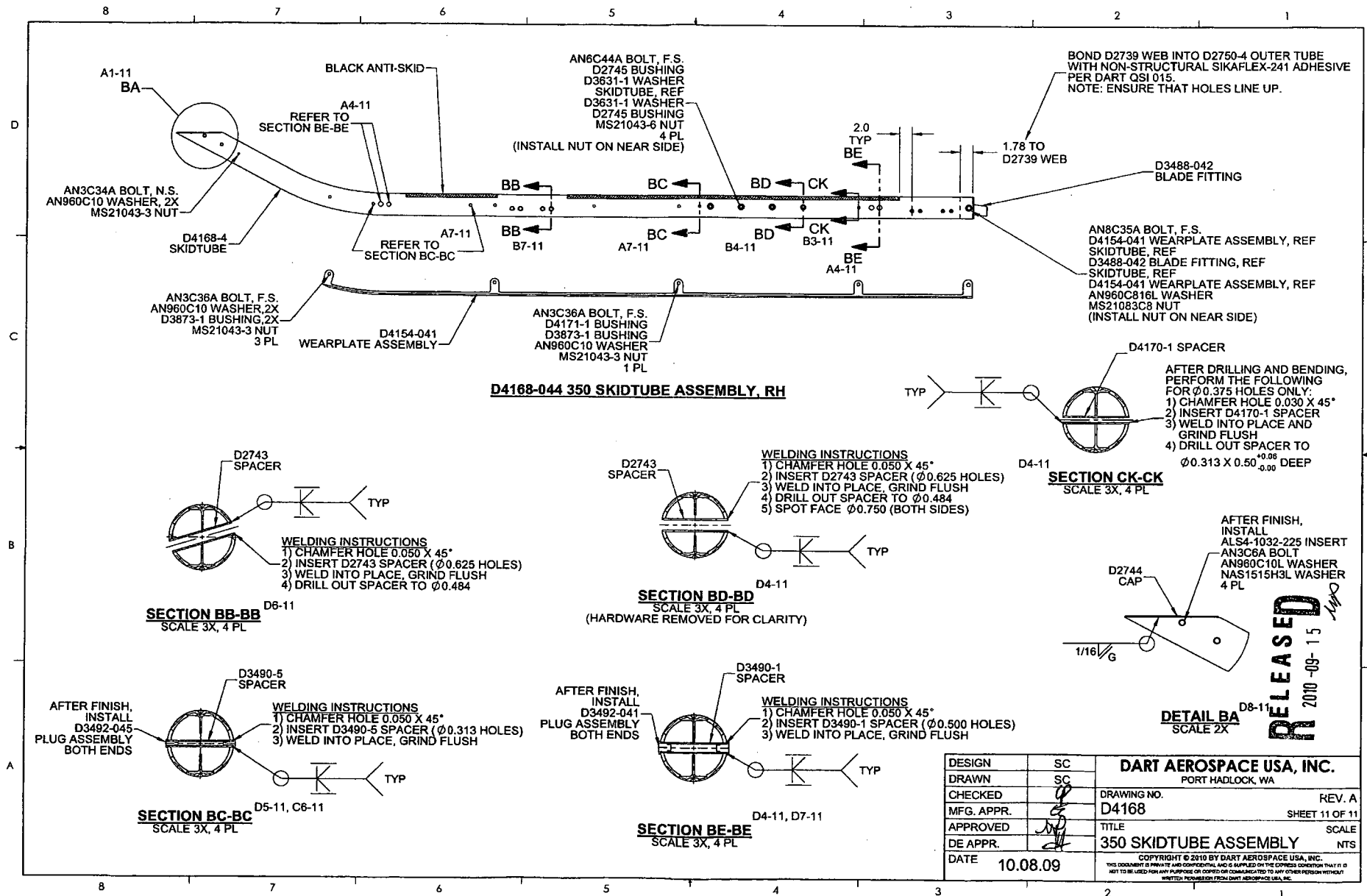
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NO. 276

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 75349
Part number: 350-636-011
Description: Skid tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☐] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier: David David Date of Test Coupon 11.11.22
Welder: Barclay Elliot Date of Test Coupon 11.11.22

The above named individual is qualified in accordance with AWS D17.1.2001 to weld